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SOUTHWEST RESEARCH AND INFORMATION CENTER

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July 14, 2003

Steve Zappe
New Mexico Environment Department
2905 Rodeo Park Drive, Building 1
Santa Fe, NM 87505

RE: WIPP Class 2 Permit Modification Requests

Dear Steve,

Southwest Research and Information Center (SRIC) requests that NMED deny three of the permit modification requests and deny at least a portion of a fourth request because they are not adequately supported technically and are so incomplete as to not provide enough basis to approve them with changes. Regulations under the New Mexico Hazardous Waste Act (20 NMAC 4.1.900, incorporating 40 CFR 270.42(b)(6)(B)) provide that NMED may deny a Class 2 modification. Several of the modifications should be submitted as class 3 modifications, if the permittees wish to continue to pursue the changes. SRIC requests that NMED deny some of the modifications, as further detailed in these comments, without prejudice to the permittees submitting more technically adequate modifications in the future.

SRIC would point out that the need to deny some of the requested modifications because they are not appropriately classified as class 2 modifications was pointed out to the permittees by SRIC (and perhaps other interested people) before the request was submitted. While SRIC appreciates the permittees providing advanced public comment on modification requests prior to their submission, the system needs further improvement in the form of the permittees actually fully considering public comments. Too often it appears that the permittees decide that a modification is needed and provide a minimum comment time and meeting, but do not provide or allow sufficient time to fundamentally change modification requests before they are submitted. Thus, some of the public's (and NMED's) time and resources are wasted and not properly respected by the permittees' practices.

Item 1 - Drum Age Criteria (DAC) for Ten-Drum Overpacks (TDOPs), 85-gallon drums and 100-gallon drums

This request must be denied because it is not properly a class 2 permit modification. The original DAC included in the permit was subject to public comment and hearing requirements for the permit issuance. The DAC for 55-gallon drums and standard waste boxes required class 3



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procedures and public comment and public hearing. The complexity of this request and the need for the detailed considerations of class 3 procedures must also be used for this DAC modification request. SRIC would point out that even with all of the experience with the DAC in the permit and the several submissions of the revised DAC, there were still errors that were identified as a result of the public hearing, which resulted in changes to the modification request. See the Secretary's Final Order of December 31, 2002, No. HWB 02-01 (M).

In addition, SRIC would strongly object to an NMED procedure that allowed multiple piecemeal class 2 modifications for the same or similar matters that would be subject to class 3 procedures. For example, approving TDOPs, 85-gallon and 100-gallon containers and the DACs for them could have been done in one class 3 modification request, rather than two separate class 2 modifications.

Among the incomplete aspects of the modification request are the following:

1. The methodology used for this DAC is not identical to the DAC used for 55-gallon drums and standard waste boxes. For example, there are different assumptions used for each of the containers (Attachment C, pages 1-2).
2. The methodology used in the DAC for 55-gallon drums included some actual data from drums to provide some verification of the model. Apparently, no such actual experiments were done for these three containers. SRIC believes that some actual experiments with real containers must be included to validate the calculated DAC values.
3. The headspace gas sampling location for 100-gallon drums is variable. (see page A-5.) The modification request does not provide adequate explanation of why different sampling locations are used nor does it demonstrate that the different sampling locations provide identical, accurate results.
4. Void space assumptions (20% of the container volume outside of the waste packaging; see page A-5) are unsupported by actual data. The permittees have not shown that the specified void space is conservative and without such a showing, the assumption is invalid and cannot be used to support an adequate modification request.
5. The permittees have not provided information that the assumptions and models used are consistent with the requirements of the Nuclear Regulatory Commission Certificate of Compliance for the TRUPACT-II. SRIC specifically points out that the 85-gallon drum has not been approved for transport. Thus, the requirements that NRC places on those containers could require revisions in the DAC to ensure that actual container configurations are the same as those used in the DAC. Thus, without a demonstration that the specifications used in the modeling are consistent with actual Certificate of Compliance, NMED does not have a complete, adequate modification request.

6. As was pointed out at the DAC modification hearing on August 26, 27, 28, 2002 (No. HWB 02-01 (M)), there are significant issues with the DAC for a 100-gallon drum, since it could be used in various configurations, including for the "pucks" from the Advanced Mixed Waste Treatment Facility in Idaho. The permit modification request has not provided adequate information about the process for making those "pucks" nor provided any data that the assumptions and modeling used in this permit modification analyzes actual 100-gallon drums with such compacted waste. Such actual data must be provided as part of an adequate permit modification request.

There are significant inconsistencies in the proposed permit language in the request. For example, on page B-4, the default for containers not repackaged is Packaging Configuration Group 3. On Table B1-8, that group is identified as for only 55-gallon drums. The associated footnote a agrees with the cited text, not with the wording regarding that group on page B-7. SRIC believes that if 55-gallon drums are not repackaged, the DAC must be the conservative default value whether or not that drum is placed in a TDOP or other, large container.

Item 2 - Removal of booster fans

On June 17, 2002 SRIC submitted comments in opposition to a previous proposed class 1* modification for the same purpose. The permittees subsequently withdrew the request. Thus, SRIC is pleased that this modification request is a class 2 request and contains much more detailed information to justify the request.

SRIC does not object to this modification request.

Item 3 - LANL sealed sources waste streams

SRIC strenuously objects to the proposed modification, which is not properly a class 2 modification, but rather must be submitted by the permittees and considered by NMED as a class 3 modification. The modification request must be denied.

The modification request is highly complex and includes a totally new waste form--sealed sources--which would have dramatically different characterization procedures, including the elimination of the headspace gas sampling requirement. Sealed sources were not included in the Baseline Inventory Report (BIR), so the permittees have not provided sufficient information about the new waste form, nor is the modification request consistent with the permit application.

The modification request must also be denied because it is not in compliance with 40 CFR 270.42(b)(1)(iii) which requires that the request "explains why the modification is needed." The request states that there are two reasons that the modification is needed (page 4), but neither actually explains or establishes that the modification request is needed.

The first explanation is that NMED previously allowed less than 100 percent headspace gas

sampling. In that case, statistical sampling and analysis was required, not zero headspace sampling. Moreover, the fact that for some waste, headspace gas sampling requirements have been reduced does not establish a need for sampling of other wastes to be eliminated.

The second stated reason is "urgency based on homeland security." Congress has provided ten million dollars to DOE "to accelerate the recovery of excess radioactive materials in the United States through the Department's Offsite Source Recovery program" House Report 107-593, page 142. Nothing in that appropriations conference report language states or implies any relationship to WIPP, let alone to the need for a permit modification. The WIPP Land Withdrawal Act (Public Law 102-579, as amended) does not include a mission for WIPP to be for "the recovery of excess radioactive materials." This bogus reason does not establish a need for the modification.

On the contrary, the WIPP Act actually *prohibits* WIPP from being used for much or all of those excess radioactive materials. In its recent report to Congress, the General Accounting Office (GAO) stated that the DOE Offsite Source Recovery program had collected more than 5,000 sealed sources and that it expects to collect more than 14,300 sealed sources. *Nuclear Nonproliferation: DOE Action Needed to Ensure Continued Recovery of Unwanted Sealed Radioactive Sources*. GAO Report 03-483, April 2003, page 3. The vast majority of those sources are not defense transuranic waste that can be disposed at WIPP, even most of the plutonium-239 sources are not defense waste. GAO Report, pages 15 and 23.

The modification request states that "approximately 1,000 sources" could be shipped from LANL to WIPP. Request, page 4. That number is vastly different than that more than 5,000 sealed sources already at LANL or the 14,300 sources that LANL intends to collect. If there is an urgency to dispose of those sealed sources, as the modification request asserts on page 4, DOE should be identifying a new disposal site for those wastes. That DOE has not done so is strongly criticized in the GAO Report, which recommends that DOE "take immediate action to provide storage space for these sources at a secure DOE facility...[and] initiate the process to develop a permanent facility for greater-than-Class-C radioactive waste to carry out the requirements of Public Law 99-240." Pages 28-29. DOE has been ignoring that legal requirement for an additional disposal site for 17 years.

The permittees cite the Congressional appropriation conference report language, but they do not even mention the GAO Report, which was highly critical of DOE's action in response to that appropriation. LANL officials were specifically interviewed for the GAO Report as were several DOE Headquarters officials (Report, page 30), so the permittees should have been aware of the report. Since the critical GAO report was issued on April 16, 2003, weeks before the modification request was submitted, it should have been included or referenced in the modification request.

Thus, the permittees modification request not only does not describe the need for the modification, as required by the regulations, but it provides inaccurate information, contrary to

the requirements of 40 CFR 270.11(d). At a minimum, SRIC believes that NMED should specifically request an explanation from the signers of the certification submitted with the modification as to why they should not be considered to have submitted incomplete and inaccurate information.

The permit modification request, if approved, would clearly violate the requirements of the Hazardous Waste Act to protect public health and the environment. Section 74-4-4.A, NMSA; 40 CFR 270.42(b)(7)(iii). For example, the request would allow leaking sealed sources to be brought to WIPP. Sealed sources may be damaged and leak; any such sources should be prohibited at WIPP. Yet the proposed permit language does not ensure that leaking sources would not be sent to WIPP. The proposed language only mentions "documented contamination survey results" but does not specify any levels of contamination from such surveys that would be deemed to require a determination of lack of "integrity." Page B-4. Procedures, such as visual examination, must be in place to ensure that no damaged sealed sources can be sent to WIPP.

The permit modification request does not include procedures to ensure that no VOC-bearing material is in the sealed sources or waste packaging. The procedures included on page B-22 of the request are not adequate. For example, the permit modification does not include any description or training requirements as to how visual examination would determine that the outer casing of each sealed source is of non-VOC bearing material.

The permit modification request does not include procedures to ensure that only defense-related sealed sources could be shipped to WIPP. Even more disturbingly, Attachment D indicates that sealed sources that are not now defense waste, "may be determined to meet this WIPP eligibility requirement at some time in the future." Attachment D, Page 1. If the modification request is approved, NMED and the public could be excluded from any future such decisions about sealed sources.

To reiterate, SRIC strongly urges that this permit modification request be denied. NMED should inform the permittees that any future modification request for sealed sources must be a class 3 modification request. NMED should also require permittees to explain why, despite their certification, the request includes inaccurate information.

Item 4 - Remove Formaldehyde as a required analyte parameter for LANL

This request does not provide sufficient basis for approval. As has frequently occurred in the past, the permittees make assertions in their requests, rather than providing data or documentation to support their position.

The basis for the modification request is the assertion that no formaldehyde was used for transuranic waste operations at LANL. The only documentation to support that assertion are excerpts from the September 1994 LANL Part A permit (Attachment F) and the two-page investigation done in March 2003 (Attachment G). Regarding the former documentation, there is

no showing that such 1994 information was accurate at the time, and certainly no documentation that wastes and processes since that time did not use formaldehyde. The brief investigation in March 2003 did not include a comprehensive review of all of LANL's processes.

Rather than rely on AK documentation that has proven to be inaccurate and incomplete in the past, the permittees should provide documentation based on Toxicity Characteristic Leaching Procedure (TCLP) sampling of actual wastes.

In the absence of such adequate documentation, NMED should deny the modification request.

Item 5 - Add New Hazardous Waste Numbers

SRIC continues to have concerns about the permittees requesting and NMED determining to add new hazardous waste numbers based on class 2, rather than class 3, modification procedures. The more extensive technical and public participation requirements for class 3 modifications would better determine whether numerous assertions in the request are valid. Certainly, more accurate and complete information would be required under class 3 procedures.

For example, Appendix C lists Rocky Flats waste streams that require the additional waste numbers. The appendix lists 85 waste streams, including 12 that are identified as being affected by the proposed new waste numbers. Thus, apparently about 14 percent of the currently identified Rocky Flats waste streams cannot come to WIPP unless the waste numbers are added. That is a very substantial part of that site's waste streams, and thus the permittees' assertion that "no changes to any management practices are necessary" (page 4) cannot be confirmed.

Moreover, that it has taken more than four years after WIPP opened for Rocky Flats to develop acceptable knowledge (AK) that those contaminants exist in such a large number of waste streams does not give confidence in the site's AK documentation. Thus, SRIC believes that NMED should not be confident about the reliability of the AK on which much of the permit modification is based.

In particular, SRIC objects to approving D033 - Hexachlorobutadiene. This chemical is potentially incompatible. Thus, the permittees must provide actual data that it is not incompatible, especially since more than two dozen other hazardous chemicals have now been approved for WIPP, which were not included in the chemical compatibility analysis done in 1996, and included as Attachment E to the modification request.

The permittees argue that since hexachlorobutadiene was included in its permit modification request of March 8, 2001, it has in essence already been fully considered and approved by NMED. That modification request stated that only one container -- at LANL -- had been identified with such a chemical (request, page A-11). Thus, the basis for that request was

significantly different than the current request. Revised Attachment O indicates that 344 metric tons of hexachlorobutadiene could be disposed at WIPP each year. That is a very significant amount of material. Such a large amount must be fully analyzed for incompatibility as well as impacts of VOC and SVOC emissions in an adequate permit modification request.

Thus, SRIC requests that the permit modification request at least as to hexachlorobutadiene be denied. SRIC also requests that if the entire modification request is not denied, that NMED indicate the need for the permittees to conduct a new chemical compatibility analysis that includes, at a minimum, all materials that are currently permitted at WIPP or which the permittees have plans to dispose at WIPP prior to the submittal of any future permit modification requests regarding adding new hazardous waste numbers.

Thank you for your careful consideration of all of these comments.

Sincerely,

A handwritten signature in cursive script, appearing to read "Don Hancock".

Don Hancock